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#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In the application of:

Alfred SCHMIDT et al.

Serial No.:

09/646,355

Filing Date:

September 18, 2000

For:

MEDICAMENT FOR PREVENTING AND/OR TREATING A MAMMARY CARCINOMA, CONTAINING A STEROIDAL AROMATASE

**INHIBITOR** 

Examiner: San-ming R. Hui

Group Art Unit: 1617

## APPELLANTS' OPENING BRIEF

Commissioner for Patents Washington, D.C. 20231

Sir:

This is a timely appeal from the final rejection of claims 17-24 in this application.

#### I. **REAL PARTY IN INTEREST**

The real party in interest is S. W. Patentverwertungs GmbH, of Salzburg, Austria, the assignee of appellants' entire, right, title and interest in this application.

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### II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences within the meaning of 37 CFR 1.192(c)(2) known to appellants or their undersigned counsel.

#### III. STATUS OF CLAIMS

Claims 17-24 (reproduced in the attached Appendix), which are under final rejection, are pending in this application.

Claims 17-24 have been finally rejected under 35 USC 112, second paragraph, as indefinite and under 35 USC 103(a) on Brodie and Messenger taken in view of Hanson.

#### IV. STATUS OF AMENDMENTS

Appellants did not amend the claims in response to the final Action (Paper No. 13), so the claims on appeal stand as presented in the Response to Notice of Incomplete Reply filed December 17, 2001 (Paper No. 12).

#### V. SUMMARY OF THE INVENTION

This invention is a method of making a medicament for the prophylaxis or treatment of mastocarcinoma (breast cancer) which comprises combining a therapeutically or prophylactically effective amount of an active ingredient with a substance for promoting skin penetration. The active ingredient comprises a steroidal aromatase inhibitor and contains no antigestagens. The combining is carried out in such a way as to avoid systemic action of the active ingredient when the medicament is applied to the skin of a patient needing prophylaxis or treatment of breast cancer.

#### VI. ISSUES PRESENTED FOR REVIEW

Whether the Examiner erred in rejecting claims 17-24 under 35 USC 112, second paragraph, as indefinite.

Whether the Examiner erred in rejecting claims 17-24 under 35 USC 103(a) on Brodie and Messenger taken in view of Hanson.

#### VII. GROUPING OF CLAIMS

The claims all stand or fall together.

#### VIII. ARGUMENT

A. The Claims Are Not Indefinite, Since Persons Skilled in This Art Readily Understand What Subject Matter Is Within Their Scope And What Subject Matter Is Not.

Claims 17-24 have been finally rejected under 35 USC 112, second paragraph, as being indefinite. Appellants respectfully submit that the Examiner has applied the incorrect legal standard under 35 USC 112, second paragraph, and has misread the claims.

As stated at MPEP 2173, "The primary purpose of this requirement of definiteness in claim language is to ensure that the scope of the claims is clear so that public is informed of the boundaries of what constitutes infringement of the patent." In order to make a proper rejection of claims for indefiniteness under 35 USC 112, second paragraph, therefore, the Examiner must decide whether the claims as presented define what is infringing and what is not, from the perspective of a person skilled in the art. MPEP 2173.02.

The law requires the Examiner to take the first reasoned, factually based step in rejecting claims. Without such a reasoned step, the Examiner has no basis for finding that this application should be rejected for failure to comply with the law, and appellants have no basis on which to demonstrate that the Examiner's factual and/or legal basis for decision is incorrect. The Administrative Procedure Act and the PTO's duty as an agency to create a record to support its decisions require that the Examiner provide a factual record to support this rejection. The correctness of these principles is apparent from the Federal Circuit's opinion in *In re Lee*, 277 F.3d 1338, 1342, 61 USPQ2d 1430, (Fed. Cir. 2002), where, in the course of discussing the necessary elements of decisions made by the PTO, the court said:

For judicial review to be meaningfully achieved within these strictures, the agency tribunal must present a full and reasoned explanation of its decision. The agency tribunal must set forth its findings and the grounds thereof, as supported by the agency record, and explain its application of the law to the found facts. The Court has often explained:

The Administrative Procedure Act, which governs the proceedings of administrative agencies and related judicial review, establishes a scheme of "reasoned decisionmaking." Not only must an agency's

decreed result be within the scope of its lawful authority, but the process by which it reaches that result must be logical and rational. [Citation omitted.]

Although this passage deals with the evidentiary requirements of the decisions of this Board as final agency decisions under the APA, the same standards perforce apply to decisions of Examiners on appeal, lest appellants not have adequate notice of the facts and law on which the appealed decision is based. *Cf.*, 35 USC 132 (requiring actions of examiners to state "the reasons for such rejection, objection or requirement, together with such information and references as may be useful in judging of the propriety of continuing the prosecution of his application").

In the final Action, the Examiner says that the expression "containing no antigestagens and a substance for promoting skin penetration" renders the claims indefinite as to the compounds encompassed by the claims. Action, page 2. The Examiner has misinterpreted the claims and failed to meet the requisite evidentiary burden to support this part of the rejection.

The claims are directed to a method that comprises combining an active ingredient that comprises a steroidal aromatase inhibitor and contains no antigestagens with a substance for promoting skin penetration. The claimed combining is carried out "so as to avoid systemic action of the active ingredient." Thus, it is clear from the claims that it is the active ingredient that contains no antigestagens and that the substance for promoting skin penetration is a different substance from the active ingredient, which both contains a steroidal aromatase inhibitor and contains no antigestagens. Persons skilled in the art would know this from the claims, and would have no doubt from reading the specification what appellants intend to cover. The Examiner has not presented any evidence, as opposed to personal, subjective belief, to the contrary and has not explained how the phrase "contains no antigestagens" is unclear as a matter of literal claim scope. It is hard to see how appellants could have been clearer. The Examiner's interpretation of the claim language is not reasonable and creates lack of clarity where there is none.

The Examiner's current position, as expressed on page 2 of the Advisory Action dated October 23, 2002, is:

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As set forth in the previous office action mailed March 27, 2002, it is not clear what the herein claimed active ingredients(s) is (are) because claim 17 recites an active ingredient comprising a steroidal aromatase inhibitor and containing no antigestagen and a substance for promoting skin penetration ...". If it is what the applicant intended to exclude the substance for promoting skin penetration, a simple punctuation<sup>[1]</sup> will be able to separate the substances and thereby renders the claim clear. [Emphasis in original.]

Putting aside the fact that the last sentence of this statement is, with all respect to the Examiner, so ungrammatical as to be nearly incomprehensible, this statement does not provide any reasoned, factual basis for supporting the rejection. The Examiner cannot, and does not seem to, contend that persons skilled in the art do not know what "a steroidal aromatase inhibitor" is and is not, nor does the Examiner provide any basis for believing that persons skilled in this art do not know what constitutes "a substance for promoting skin penetration" and what does not. This part of the indefiniteness rejection lacks factual and legal support and should be reversed.

In the final Action the Examiner said that the phrase "containing a substance for promoting skin penetration... avoids systemic action" renders the claims indefinite "because it is unclear how, if [a] penetration enhancer which promotes systemic absorption of the steroidal aromatase inhibitors is comprised in the composition, systemic activity of the steroidal aromatase inhibitor would be totally absent in the body." Appellants respectfully submit that there are two separate problems with the Examiner's interpretation.

First, the Examiner has misread the language of claim 17, which says that the combination of the substance with the active ingredient produces the function of promoting skin penetration while avoiding systemic action of the active ingredient. Thus, the substance encompassed by the claims does not, contrary to the Examiner's apparent interpretation, promote systemic absorption of the steroidal aromatase inhibitors comprised in the composition. The

If the Examiner believes that this rejection will go away with the simple insertion of punctuation, appellants and their undersigned attorney stand ready to consider any reasonable proposal from the Examiner to eliminate this issue from this appeal. Perhaps a telephone interview is the best way to resolve this matter.

claim language as it stands is clear to persons skilled in this art to convey this meaning, and the Examiner has provided no factual basis for concluding otherwise.

The second difficulty with the Examiner's logic is that it confuses enablement with indefiniteness. It is not the function of the claims to explain how the invention is carried out but rather to simply define the metes and bounds of the invention so that persons skilled in the art will know whether their activities are within or without the scope of the claims. The Advisory Action continues this error by the Examiner, who states that since the specification only lists two examples of substances for skin promoting penetration, it is not clear what other compounds would also be encompassed by the expression. Advisory Action, page 2. Persons skilled in the art reading the claims in this application would understand what is a substance for promoting skin penetration and what is not, regardless of the examples in this application, and the Examiner has presented no reason other than personal, subjective belief to the contrary. Furthermore, persons skilled in the art would understand that they are not practicing the method of the claimed invention if they perform the step of combining a substance for promoting skin penetration with the active ingredient in such a way that allows systemic action of the active ingredient when applied for the treatment or prophylaxis of breast cancer.

Thus, as the record now stands, all that appears is a "[the Examiner] said, [the appellants] said" situation, without a statement of some sort of objective, factual basis from which to conclude in the first instance that appellants' claims are indefinite. As a result, the rejection of claims 17-24 as indefinite should be reversed.

# B. The Examiner Has Presented Insufficient Evidence To Make Out A *Prima Facie* Case Of Obviousness Under *In re Lee* and Other Applicable Case Law.

Claims 17-24 stand rejected under 35 USC 103(a) on Brodie and Messenger in view of Hanson. In the final Action, the Examiner cites Messenger as teaching a process of making a topical formulation of a steroidal aromatase inhibitor that contains no antigestagens, referring to page 10, lines 10-15, and Example 1, page 28, of Messenger. Brodie is cited as teaching a

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pharmaceutical formulation of a steroidal aromatase inhibitor that is administered to a host for sustained release, referring to page 369, column 2, 2<sup>nd</sup> paragraph, of Brodie. The Examiner admits that the references do not teach that the formulation contains a penetration promoting agent and do not teach the formulation of the steroidal aromatase inhibitor as a topical formulation. Final Action, pages 3-4. Hanson is cited for teaching DMSO as being useful as a penetration promoting agent in local administration of drugs, referring to page 1218, first column, "Uses" section. The Examiner reasons that it would have been obvious for a person of ordinary skill in the art at the time the invention was made to formulate a steroidal aromatase inhibitor into a topical formulation and that likewise it would have been obvious at the time the invention was made to use DMSO as a penetration promoting agent in the topical formulation of the steroidal aromatase inhibitor. The Examiner further indicates the belief that Messenger would have motivated a person of ordinary skill in the art to formulate 4-O-acetylandrost-4-ene-3, 17-dione into a topical formulation with no antigestagen and a penetration promoting agent "because Messenger suggests that the topical formulation therein containing no antigestagen may employ any known aromatase inhibitor including 4-O-acetylandrost-4-ene-3, 17-dione."

Based on this logic, the Examiner challenged appellants to demonstrate unexpected results over the prior art and argued on page 5 of the final Action that the method of making the mastocarcinoma treatment composition claimed "is clearly obvious in view of the cited prior art which suggests the usefulness of effective amounts of aromatase inhibitors herein in a composition with a penetration enhancing agent, [in the] absence of antigestagens." The Examiner's rejection is based on a misinterpretation of the claims. Furthermore, the references cited by the Examiner fall short of containing the evidence of motivation necessary to support this rejection, which should be reversed.

1. The Examiner Has Improperly Failed To Give Weight To the Preambles Of the Claims In Making The Obviousness Rejection.

At the bottom of page 5 of the final Action, the Examiner dismissed the preamble limitation that the medicament whose method of making is claimed is "for the prophylaxis or treatment of mastocarcinoma" as not having patentable weight in appellants' claims, which, the Examiner said, are directed to a method of making a product and not to a method of treating mastocarcinoma. This is legally incorrect, since the preamble is necessary to breathe life and meaning into the claims. The reason is that the choice of a substance for promoting skin penetration and the amount of the substance combined with the effective amount of the active ingredient depends upon where and how the medicament is to be used. As the specification of this application explains, the choice of skin penetration promoting agent is made keeping in mind the fatty nature of the tissue to be treated and is not done indiscriminately. Page 9, lines 24-31. The claimed method is not an open-ended method of combining two ingredients; rather, it is a method for making a medicament that, because of its particular claimed intended use, has certain characteristics which the method of making the medicament must be carried out to produce when the end product is used.

Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999), provides the legal background for this analysis:

Although our initial discussion has focused on the preamble, as opposed to the remainder of the claim language, this does not undercut its significance. "[A] claim preamble has the import that the claim as a whole suggests for it." *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995). If the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is "necessary to give life, meaning, and vitality" to the claim, then the claim preamble should be construed as if in the balance of the claim. *Kropa v. Robie*, 38 CCPA 858, 187 F.2d 150, 152, 88 USPQ 478, 480-81 (CCPA 1951); see also *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997); *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989). Indeed, when discussing the "claim" in such a circumstance, there is no meaningful distinction to be drawn between the

Serial No. 08/646,355 Docket No. 246472001600 claim preamble and the rest of the claim, for only together do they comprise the "claim". If, however, the body of the claim fully and intrinsically sets forth the complete invention, including all of its limitations, and the preamble offers no distinct definition of any of the claimed invention's limitations, but rather merely states, for example, the purpose or intended use of the invention, then the preamble is of no significance to claim construction because it cannot be said to constitute or explain a claim limitation. See *Rowe*, 112 F.3d at 478, 42 USPQ2d at 1553; *Corning Glass*, 868 F.2d at 1257, 9 USPQ2d at 1966; *Kropa*, 187 F.2d at 152, 88 USPQ at 480-81.

The first lines of claim 17 show why the Examiner is incorrect in dismissing the preamble. As the Board will note, claim 17 starts with the words, "A method of making a medicament for the *prophylaxis or treatment* of mastocarcinoma, comprising combining a *therapeutically or prophylactically* effective amount ..." [Emphasis added.] The words "therapeutically or prophylactically" in the body of the claim, refer back to the "prophylaxis or treatment" of mastocarcinoma specifically, not to any possible effective amount of the active ingredient for any purpose. Furthermore, the last portion of the claim, "penetration so as to avoid systemic action of the active ingredient," implicitly refers back to the preamble because it makes sense only in the context of avoiding systemic action of the active ingredient in treating mastocarcinoma, i.e., breast cancer. Thus, the preambles of the claims on appeal are limiting for purposes of patentability over the prior art.

2. The Prior Art Cited By The Examiner Fails To Provide The Evidence Necessary Under In re Lee and In re Thrift To Support The Obviousness Rejection.

Since the Examiner has overlooked a significant aspect of the claimed invention, the requirement of all of the claims that the combining of the substance for promoting skin penetration with the active ingredient in accordance with the claimed method be carried out "so as to avoid systemic action of the active ingredient" in the prophylaxis or treatment of mastocarcinoma, the Examiner failed to present evidence that persons of ordinary skill in the art would have been motivated to practice all of the elements of the invention in the combination as claimed. There is no evidence whatever in this record that it would have been obvious to persons of ordinary skill in the art to make or practice the claimed invention.

The record so far shows that the Examiner failed to provide evidence of a motivation to combine a substance for promoting skin penetration with the claimed active ingredient so as to produce this explicitly claimed result of the claimed method, so there is no *prima facie* case of obviousness for appellants to rebut. Appellants respectfully point out that the method as claimed is, indeed, a method of making a medicament, carried out so that the medicament produced has the property claimed of avoiding systemic action of the active ingredient in the treatment or prophylaxis of breast cancer. This is a proper limitation of a method of manufacture claim and is not a mere statement of intended use that does not lend patentable weight to claims drawn to a method of making a product. As appellants have stressed above, methods of making products that do not produce a product with the claimed characteristics are not within the scope of the claims of this application.

We start with the Examiner's admission that none of the cited art expressly teaches the step of combining an active ingredient with a skin penetration promoting agent. Final Action, page 3. The lack of such evidence dooms the rejection because, as explained by the court in *In re Lee*, *supra* at 1343, 61 USPQ2d at 1433,

When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. See, e.g., *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) ("the central question is whether there is reason to combine [the] references," a question of fact drawing on the *Graham* factors).

In other words, this obviousness rejection fails because the Examiner has presented no evidence to support an essential element of the *prima facie* case of obviousness, that persons of ordinary skill in the art would have been motivated to combine the claimed active ingredient with a skin penetration promoting agent in such a way as to avoid systemic action of the active ingredient when the result of this combining step is used in the treatment or prophylaxis of breast cancer.

The Examiner admits that Brodie does not teach the use of topical formulations. Brodie directs persons of ordinary skill in the art away from the invention of this application by teaching

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the sustained release administration of steroidal aromatase inhibitors systemically so as to achieve serum levels sufficient to produce the therapeutic effects disclosed in Brodie. Brodie does, indeed, disclose treatment of mammary tumors, but Brodie suggests strongly that systemic administration is necessary for the treatment to be effective. Accordingly, Brodie cannot be used except in hindsight to support this rejection.

Messenger does not teach or suggest to persons of ordinary skill in the art that *mastocarcinoma* may be treated in accordance with the claimed method, but is instead directed to the treatment and prevention of *hair loss*. Although the Messenger disclosure refers to topical application of an aromatase inhibitor, there is no suggestion in Messenger whatever to use an aromatase inhibitor, steroidal or otherwise, in effective amounts against mastocarcinoma by topical administration locally in the vicinity to treat or prevent mastocarcinoma. The Examiner has presented no evidence as to why a person of ordinary skill in the art of treating or preventing breast cancer, the art to which appellants' invention pertains, would *ever* consider disclosures of baldness remedies to be relevant to the prophylaxis or treatment of breast cancer. After all, baldness remedies are applied to the head, not to the breasts. Persons of ordinary skill in the art would not have been motivated by Messenger to administer steroidal aromatase inhibitors topically for treatment of mammary carcinoma.

Hanson might show that DMSO is known as a skin penetration aid, but that does not add significantly to the disclosures of Brodie and Messenger, since Hanson does not disclose any use of DMSO in cancer treatment of any kind and says nothing about the avoidance of systemic action.

In re Thrift, 298 F.3d 1357, 63 USPQ2d 2002 (Fed. Cir. 2002), is of no help in supporting this rejection. In *Thrift* the court approved the Board's analysis of motivation evidence in light of *In re Lee*, by pointing to evidence in the cited prior art of the motivation to arrive at the invention, supra at 1364-65, 63 USPQ2d at 2007:

The motivation to combine the references is present in the text of each reference. The Schmandt reference itself verifies this motivation, stating that "allowing users to remain focused on the screen and keyboard, instead of fumbling for the mouse, would be beneficial in a workstation environment." Schmandt at 51. Stefanopoulos itself, while not expressly disclosing the use of speech recognition, sets forth the motivation to combine the references, stating that "there are alternative means to select the buttons, including . . . voice-activated transfer means, which may be readily adapted for use with the present invention by those skilled in the art." '237 patent, col. 4, ll. 34-38.

The prior art of record in this application falls far short of providing the basis for the reasoned approach approved by the court in *Thrift*. Without the required evidentiary basis or articulated explanation of motivation based on that evidence to arrive at the claimed invention, the appealed rejection must be reversed.

#### **CONCLUSION**

For the foregoing reasons, the Board should reverse the final rejection of claims 17-24 in this application.

In the event that the transmittal letter is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief is required, appellants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 246472001600.

By:

Respectfully submitted,

Dated: December 23, 2002

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#### APPENDIX OF CLAIMS ON APPEAL

- 17. A method of making a medicament for the prophylaxis or treatment of mastocarcinoma, comprising combining a therapeutically or prophylactically effective amount of an active ingredient comprising a steroidal aromatase inhibitor and containing no antigestagens and a substance for promoting skin penetration so as to avoid systemic action of the active ingredient.
- 18. The method according to claim 17, wherein the active ingredient comprises 4-hydroxyandrost-4-ene-3,17-dione or a pharmacologically active derivative thereof.
- 19. The method according to claim 17, wherein the active ingredient comprises 4-O-acetylandrost-4-ene-3,17-dione.
- 20. The method according to claim 17, 18 or 19, wherein the medicament comprises DMSO.
- 21. The method according to claim 17, 18 or 19, further comprising adding ingredients to the medicament to formulate the medicament as an ointment, cream, gel, emulsion or lotion.
- 22. The method according to claim 21, wherein the active ingredient content is 0.0001-20% by weight of the medicament.
- 23. The method according to claim 21, wherein the active ingredient content is 0.6-10% by weight of the medicament.
- 24. The method according to claim 21, wherein the active ingredient content is 1-5% by weight of the medicament.